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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,441	07/07/2003	Jong Soo Ko	2013P095	7432

8791 7590 06/15/2005

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EXAMINER

LEVKOVICH, NATALIA A

ART UNIT PAPER NUMBER

1743

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/615,441

Applicant(s)

KO ET AL.

Examiner

Natalia Levkovich

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Response to Amendment*

- Applicant's amendments and remarks filed May 20, 2005 have been acknowledged by the Examiner.

### *Claim Rejections - 35 USC § 112*

- The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.
- Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being unclear for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. See the appropriate paragraphs of the 02/23/2005 Office Action.

### *Claim Rejections - 35 USC § 102*

- Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by Hui Liu et al. (PG PUB 20040007275).

See the appropriate paragraphs of the 02/23/2005 Office Action.

### *Claim Rejections - 35 USC § 103*

- Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable

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over Hui Liu et al. (PG PUB 20040007275) in view of Troian et al. (PG PUB 20020150683).

See the appropriate paragraphs of the 02/23/2005 Office Action.

6. Claims 10-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hui Liu et al. (PG PUB 20040007275) in view of Blackburn et al. (PG PUB 20030190608).

See the appropriate paragraphs of the 02/23/2005 Office Action.

7. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hui Liu et al. (PG PUB 20040007275) in view of Blackburn et al. (PG PUB 20030190608) and further in view of Troian et al. (PG PUB 20020150683).

See the appropriate paragraphs of the 02/23/2005 Office Action.

### ***Response to Arguments***

8 Applicant's arguments filed on 05/20/2005 have been fully considered but they are not persuasive.

Applicant traverses the 35 U.S.C. §112 rejection of claims 1-3 based on the Applicant's belief that the independent claim sufficiently points out and distinctly claims the subject matter and that further structural limitations in the dependant claims are not required. With all due respect, Examiner notes that claim 1 fails to point out and distinctly claim the subject matter because it does not specify interrelations between the elements recited (such as a sensing electrode, an electrode interconnect, a pad inlets, a channel and a chamber). As to claims 2 and

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3, by Applicant's own admission, further limitations on the subject matter claimed are required by law. In case of subject matter being an apparatus, the further limitations comprise elements constituting the apparatus.

Applicant argues that the Hui Liu reference fails to teach all the elements of the apparatus claimed. The Examiner notes that Hui Liu discloses every element recited in claims 1-4 of the instant application including channel substrate ('fluidic cartridge') comprising channels, chambers and inlets / outlets. In particular, Liu teaches loading into two channels 110 and 115, which seems to indicate that two input ports must be necessary (See [0016], [0017], [0033], [0034], [0039], claims 2-3). As to separate inlet ports, it takes at least two inlet ports to load the sample and reagents into two separate chambers. The 'single branched inlet port suggested by Applicant in the Remarks as an alternative, still comprises separate inlets (in respect to each separate chamber) joined together outside the claimed structure.

As is admitted by Applicant, Hui Liu teaches that fluids flow can be manipulated by gravity, or by pump, or by capillary forces which encompasses the variant when a first fluid being driven by natural capillary force and a second-by pump.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after


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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Levkovich whose telephone number is 571-272-2462. The examiner can normally be reached on Mon-Fri, 8 a.m.-4p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jill Warden  
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Technology Center 1700